

NWS FORM E-5 (11-88) (PRES. BY WSOM E-41)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS		REPORT FOR: MONTH YEAR March 2004
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE Alan Gerard, MIC In Charge of HSA DATE April 12, 2004

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41)

Synopsis...

The word for the month of March was "DRY"! After a wet February, rainfall for March was below normal in most every portion of the state with some sections of the state reporting the driest March on record.

The month of March started as February ended, in a wet weather pattern. From the 1st until the 6th, an upper air low pressure trough began to push to the east. Ahead of the upper air system, a surface front pushed south into the HSA and stalled. Soon after, the front began to push slowly to the north as a warm front bringing with it lots of warm moist air. During this time, rainfall was reported over most areas of the HSA. On the 5th into early on the 6th, the low pressure trough began to shift eastward. An associated surface cold front began to push to the southeast, bringing heavy rainfall to portions of the Yazoo, Pearl, and the upper Pascagoula River System. Rainfall amounts during the period ranged from .75 in south central Mississippi to 3.75 inches in northern sections of the HSA. Some heavier 24 hour rainfall amounts ending at 7am: 2.68 inches at Pat Harrison Waterway's Turkey Creek WP, MS (6th), 2.50 inches at Lexington, MS (6th) and at Rolling Fork, MS (6th), 2.44 inches at Winona, MS (6th), 2.30 inches at Yazoo City, MS (6th); 2.25 inches at Tibbee, MS (2nd).

From the 7th until the 13th, dry weather prevailed, welcome relief from over a month of wet weather. Two dry cold fronts pushed through the area during this period, one on the 9th and the other on the 12th.

From the 14th into the 16th, a cold front pushed through the area. Rainfall amounts ranged from a trace of rain to around 2.00 inches, most stations reporting 1 inch or less.

High pressure prevailed on the 17th; however, as the high pushed eastward, a stationary boundary set up from Arkansas into northern Mississippi. Rainfall occurred early on the 18th over Southeast Arkansas and portions of North Mississippi. Rainfall amounts were generally .50 to .75 inches.

A strong cold front progressed through the state late on the 20th into the 21st, bringing with it much cooler air. Rainfall occurred over Southeast Arkansas, Northeast Louisiana, and portions of North Mississippi. Rainfall

amounts ranged from less than .25 inches to near 1.50 inches over Southeast Arkansas. No rain was reported over central and southern portions of Mississippi.

High pressure dominated the HSA's weather from late on the 21st until the 28th. By the end of the period, temperatures had warmed into the upper 70s and lower 80s.

From late on the 28th until early on the 31st, another upper air low pressure trough advanced from the west into the area while a series of surface cold fronts progressed across the area. Rainfall amounts were scattered over the HSA and ranged from less than .10 inches to near 1.00 inch over Southeast Arkansas and Northeast Louisiana.

The most significant hydrologic event of the month occurred on March 12th. A sunny day failure occurred at Big Bay Dam on March 12th just after 12:30pm. The dam structure could have been weakened by excessive rainfall across Lamar County during month of February. Actual cause has not been determined as of the writing of this report. The failure of the 900 ac. lake sent a wall of water around 17 feet high downstream, destroying or severely damaging 22 houses and 6 mobile homes. The water progressed through Lower little Creek into Marion County and finally emptied into the Pearl River around 9 to 11 hours after failing. There was no loss of life; however, if the failure would have occurred 10 to 12 hours earlier or later, the potential for loss of life would have been greatly increased.

River and Soil Conditions...

Soil moisture was above normal at the beginning of the month; however, by the months end, soil moisture had returned to near normal over most areas with the exception of southeastern areas of Mississippi. Over this section, below normal soil moisture conditions prevailed.

Minor flooding occurred along the Middle and Upper Big Black River Basin, Tuscolameta Creek, Upper and Lower Pearl River, and the Yalobusha. See E-3 report for crest information. River levels fell to near base flow by the end of the month over most sections of the HSA.

With below to near normal soil moisture conditions and near normal rainfall expected for the next 60 to 90 days, flood potential will be near normal across most sections of the HSA with the exception of slightly below normal potential across southeast Mississippi.

Rainfall for the month of March...

<u>RIVER BASIN</u>	<u>RAINFALL</u>	<u>DEPARTURE FROM NORMS</u>
Southeast Arkansas (Chicot & Ashley counties)	1.50 to 5.00 inches	Well Below to near normal. (20 to 93% of normal).

Northeast Louisiana (Tensas, Boeuf, Bayou Macon & Lower Ouachita)	2.00 to 3.25 inches northern sections	Well below normal. (33 to 52% of normal)
	2.00 to 3.00 inches central sections	Well below normal. (30 to 52% of normal)
	1.25 to 2.00 inches southern section	Well below normal. (25 to 33% of normal)
Lower Yazoo	2.25 to 5.25 inches	Below to well below normal. (38 to 85% of normal)
Big Black	3.00 to 4.75 inches upper basin	Below to well below normal. (47 to 75% of normal)
	2.00 to 2.50 inches middle basin	Well below normal. (33 to 38% of normal)
	1.00 to 3.51 inches lower basin	Well below normal. (15 to 55% of normal)
Homochitto/ Bayou Pierre	1.50 to 2.25 inches	Well below normal. (23 to 34% of normal)
Pearl (abv Jackson)	1.50 to 3.25 inches	Well below normal. (21 to 48% of normal)
Pearl (Blo Jackson)	1.50 to 3.00 inches	Well below normal. (23 to 48% of normal)
Pascagoula	1.50 to 2.50 inches over the Leaf basin.	Well below normal. (20 to 34% of normal)
	1.50 to 1.75 inches over the Black Creek basin.	Well below normal. (25 to 30% of normal)
	1.25 to 3.00 inches over the Chickasawhay	Well below normal. (18 to 32% of normal)
Tombigbee tributaries in the JAN HSA	2.25 to 6.00 inches	Normal to well below normal. (36 to 98% of normal)

The heaviest rainfall amounts in the HSA for the month were: 5.98 inches at Starkville, MS; 5.19 inches at Lexington, MS; 5.01 inches at Yazoo City, MS; 4.74 inches at Winona, MS; 4.53 inches at Tibbee, MS; 4.42 inches at Vaiden, MS.

At the Jackson WFO, the March monthly rainfall was 1.23 inches, which was 4.51 inches below normal. This is the lowest March rainfall total since records began at the Jackson international Airport. Total rainfall for the year was 11.95 inches, which was 3.96 inches below normal.

At Meridian Key Field, the March monthly rainfall was 1.97 inches, which was 4.96 inches below normal. Total rainfall for the year was 13.03

inches, which was 5.17 inches below normal.

At Greenwood-Leflore Airport, the March rainfall was 4.09 inches, which was 1.67 inches below normal. Total rainfall for the year was 14.65 inches, which was 0.59 inches below normal.

Mississippi River...

The Mississippi River from Arkansas City to Natchez experienced a rise from first of the month and crested around mid month. The river fell for the remainder of the month. The river started and ending the month below seasonal norms while the middle portions of the month the river was well above seasonal norms. The provisional high and low stages for March are listed below:

Location	High Stage(ft)	Date	Low Stage(ft)	Date
Arkansas City, AR	32.10	03/19	14.52	03/01
Greenville, MS	43.67	03/20	25.87	03/01
Vicksburg, MS	37.41	03/21	22.38	03/02
Natchez, MS	44.46	03/22	31.49	03/03

Products issued...

Total Flood Warning products issued: 10

Total Flood Statement products issued: 70

Daily Rainfall Products (RRA'S) issued 31

Daily River Forecast Products (RVS'S) issued: 31

Daily River Stage products (RVA'S) issued 31

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Service Hydrologist

Note: Stage and precipitation data was furnished with cooperation from Mississippi, Louisiana, and Arkansas, N.W.S. Cooperative Observers, United States Geological Survey, United States Army Corps of Engineers and the Pearl River Valley Water Supply District, Pat Harrison Waterway District, Pearl River Basin Development District and the Mississippi Department of Environmental Quality.

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